

**Sources of aggressive and antisocial behaviour in children. A
brief outline with pointers for intervention**

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INTRODUCTION

Despite contemporary concerns, a culture of violence has been evident in South Africa for many years. Even during the years of apartheid oppression, rates of criminal violence far outstripped political violence, and rates of abuse to women and children were already very high (Dawes & Donald, 1994)..

At the present time, vulnerability of the young to interpersonal violence is very high. The National Injury Mortality Surveillance System's (NIMSS) Third Annual Report for 2001 shows that contemporary youth are particularly vulnerable to violent assault. Firearms were the major cause of death among children aged 10-14 years, and accounted for 48.3% of all homicides in this age group. Stabbings of one kind or another accounted for 36.6% of homicides in the 15–19 year age group (Matzopoulos, 2002). In addition, Peden (2000) reports that gunshot wounds account for 16% of all violent injuries presenting at hospitals.

The evidence further indicates that many of those who perpetrate this violence are themselves of school-going age or young adults (Matzopolous, 2002; (Flisher, Ziervogel, Chalton, Leger, & Robertson, 1993).

It is males who constitute the overwhelming majority of the victims and perpetrators of interpersonal violence, which is often accompanied by drug and alcohol intoxication. Commonly the antagonists are known to one another – at least by sight.

Where sexual violence is concerned, and whether we are talking of the sexual abuse of little children and the rape of young girls and women, it is of course males who are the perpetrators. This paper will not speak further to the appalling levels of sexual violence in this country – a subject that deserves its own considered attention.

The focus will be on non-sexual interpersonal violence and some its sources in the experience of the young.

South African children are exposed to violence in a number of sites, the home, the local streets and the schools – to say nothing of the influence of television and video games. The ideological contexts that boys in particular inhabit (with their stress on aggressive masculinity) and the everyday experience of deep frustration born out of chronic poverty, provide a fertile ground for the young to be socialised into angry young men.

Some of the main indicators of the challenging situation for most South African children are contained in Table 1.

Table 1 here.

The causes of violence on the scale that prevails in South Africa are complex indeed. They require multiple levels of analysis.

This brief paper will attempt to introduce one angle – the roots of violence in childhood experience. Explanation at this level is in itself a daunting matter. However, it is crucial for us to understand it as best we can, and

deploy this understanding in efforts to prevent the production of successive generations with a proclivity for interpersonal violence.

It has become imperative to determine effective ways to address the effects of violence exposure, and prevent the development of violent tendencies in the young. This is a very challenging task in a context with high levels of poverty, few opportunities for youth, a well-embedded culture of violence, and few evidenced based approaches to the problem. we need to be aware that intervention are not likely to have a major impact in the absence of significant reductions in unemployment and chronic poverty – the major contextual drivers of violence and criminal activity (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002).

As we shall see, repeated exposure to violence in several contexts during childhood and adolescence, has two main consequences:

1: Plenty of opportunities arise for learning that violence is the answer to the resolution of disputes.

2: Exposure to intimate violence, particularly in the home, and particularly as a consequences of repeated assault by caregivers, results in a young person who is likely to carry that trauma forward into adulthood in the form of an untrusting, hostile and hypervigilant approach to the social world.

The paper will present a brief review of some of the developmental pathways that lead toward aggressive conduct, and then discusses a framework for violence prevention drawing on relevant international models and research.

Matters of definition

It is important to be clear about how we define interpersonal violence for present purposes. According to the World Health Organisation it is defined as:

“The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, physical harm, maldevelopment or deprivation” (Butchart, 1996; Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002).

For present purposes I use a more limited definition, which excludes intergroup violence and self-injurious behaviour:

Interpersonal violence refers to acts that involve the intentional use of physical force on another person in order to achieve some objective.

Excluded are terms sometimes evident in the literature such as emotional violence, and neither does it consider the violence inherent in structurally determined relations of power (say between men and women).

It is not helpful that the terms ‘aggression’ and ‘violence’ are often used interchangeably. ‘Aggression’ may refer to an emotional state or to a range of behaviours. As overt behaviour it may be verbal or non-verbal, intentional or unintentional. The definition of violence presented here is closest to the term “instrumental aggression” used to describe behaviour that is intended to hurt in order for the perpetrator to gain something from the victim (Cole & Cole, 2001).

THE DEVELOPMENT OF VIOLENT BEHAVIOUR

Violence prevention is challenging because the causes and maintaining factors associated with interpersonal violence are complex. They have individual, familial, community and cultural components, and the power of their influence varies across child and adolescent development. The brevity of the current contribution permits only a brief outline of some pertinent findings derived from this complex field.

Some idea of the intricacy of the determinants of violent behaviour is evident from (Tolan & Guerra, 1998) ecological model which was originally formulated to address the causation of child abuse. They postulated three linked influence systems which with some adaptation, remains useful in the present context. The systems are: the macro-societal system, proximal social contexts, and the behavioural system of the individual child.

The *macro-societal system* provides cultural scripts for the use of interpersonal violence. There is of course variable adherence to the scripts within and between different cultural communities and families.

Proximal social contexts refer to the primary settings of development outside the family, such as the neighbourhood, school and peer group within which styles of conflict management are practiced and learnt.

At the next level, particularly powerful sources of influence are *close interpersonal systems*, which refer to enduring contexts of development such as the family. At this level for example, family codes of practice for discipline, problem solving and attitudes toward violent behaviour are repeatedly evident.

Finally, the *individual* level addresses proclivities to violent behaviour that have their roots in the child's biological and psychological make-up, and which may be particularly important in the causation of early conduct problems (Rutter & Herzov, 1985).

The complex challenges for violence prevention should already be evident from this brief outline of the several potential sources of the problem.

Historically, the focus of research and intervention has been of a clinical tertiary nature and has focused on addressing the problem at the individual psychological and family levels (e.g. Dodge & Coie, 1987; Patterson, 1982).

More recently, models of the pathways along which different groups of children proceed on their way to disruptive, violent and serious antisocial behaviour in adolescence have been constructed by Loeber & Farrington, (1997); Loeber et al., (1993); (Moffit, 1993). Based largely on retrospective and prospective longitudinal research, path studies attempt to ascertain the stable *sequences* of behaviour that are evident on the road to violence (typically, behaviour A is followed by B and then C etc).

As will be evident in Figure 1 below, the sources of violent conduct in the young are multiple. They involve complex interactions between child factors and those located in familial and social environments.

Insert Figure 1 about here

Figure 1 outlines the key contextual and individual risk factors that have been shown to influence the development of anti-social behaviour (particularly interpersonal violence). They include characteristics of the neighbourhood, the family, the caregiver and the child. The figure shows how each of these elements combine to exert both direct and indirect

influences on child outcomes.

For example, dangerous neighbourhoods can have a direct influence both the child and the care environment. In the latter instance the influence child outcomes is indirect. Here the caregiver's (caring) response to a high risk neighbourhood is harsh discipline in order to protect the child from bad influences. However, the unintended consequence may be that the child, particularly if male, develops aggressive behaviour, and resentment of the caregiver. Ironically, the home becomes an unpleasant place to be, and the child heads for the street.

Neighbourhood factors also have direct influences on the individual child, as when the presence of many anti-social peers increases the risk that a child will become absorbed into an anti-social group.

It is also well known that a family characterised by adult conflict has a negative influence on children and is associated with anti-social outcomes in boys in particular (Patterson, DeBaryshe & Ramsey, 1989). Patterson also notes that caregiver risk factors such as a history of anti-social behaviour and substance abuse are associated with aggressive anti-social behaviour in children.

Children who grow up under circumstances of chronic violence at home and in their neighbourhoods are at risk for what is known as Type 2 trauma (Terr, 1990 cited in Osofsky, 1995), a form of continuous traumatic stress. Youngsters who show Type 2 trauma display a range of psychological outcomes that are associated with proclivities to violence and reduced empathy for victims of violence, including: emotional numbing, constricted affect, impulsivity and impaired concentration, and most important, hypervigilance to the potential threat of violence (a tendency to misread benign social cues).

Caregiver characteristics and parenting behaviours interact with the characteristics of the individual child (see Figure 2 below) to contribute to child outcomes (Patterson et al., 1989).

Insert Figure 2 about here

Different types of risk for aggressive and antisocial conduct are influential at particular points in childhood. Figure 2 illustrates the main risks associated with each developmental period (based on Reid & Eddy, 1997).

Insults to the child's neurological system may occur in utero, predisposing the child to attention deficits and poor impulse control. Both are associated with aggressive traits. Alcohol abuse by a pregnant woman, particularly when coupled with poor nutrition constitutes a significant risk to the developing brain. We can note that among farming communities of the Western Cape, the incidence of Foetal Alcohol syndrome (FAS) is a problem. While no local studies of the relationship between FAS and childhood aggression are known, it is probable that the deficits referred to above will have an influence on systems that regulate the expression of aggression.

During infancy and early childhood the child's temperament and interactions with key socialisation agents may reduce or escalate the probability of later child behaviour problems. During this developmental period, therefore, preventive family level interventions that focus on

improving supportive and non-authoritarian caregiver discipline and pro-social "family management" skills may be most appropriate (Patterson et al., 1989).

The research evidence clearly indicates that when disruptive overt antisocial conduct starts in *early* childhood, is associated with authority conflict and does not diminish prior to school, it is likely to continue into adolescence and youth unless the problem is addressed.

During middle childhood, the child's circle of peer and adult relationships expands and opportunities for learning both prosocial and anti-social conduct increase. The child's scholastic performance will also influence engagement with the learning process. Success is likely to increase self-esteem, while repeated failure is likely to increase the risk that the child will reject academic activity and draw closer to peers with similar negative school experiences. Initiatives to promote pro-social behaviour may need to focus on changing teacher and or child behaviour, or a wide range of practices in the school as a whole (Samples & Aber, 1998). For conduct disordered preschool and school age children, tertiary level individual clinical interventions may be necessary, preferably complemented by family interventions (e.g. Dodge & Coie, 1987; Petersen & Carolissen, 2000; Webster-Stratton, 1985).

The school experience continues to have a powerful effect in early adolescence – a time when boys from high risk communities may drop out. Peers have an increasingly important influence in the adolescent period. Allen, Weisberg and Hawkins (1989 in Samples & Aber, 1998) contend that whether the child's peer group is primarily pro-social or anti-social in orientation affects the probability of the development of aggressive and violent behaviour. Community level interventions may be necessary to reduce the proclivity of adolescent and youth drug-taking and violent behaviour which places younger children living in that area at risk for engaging in these activities (Hawkins, Arthur, & Olson, 1997).

The findings of research in this area therefore not only assist in mapping the various risk factors in the causation of violence in young people, they suggest points for intervention (McGuire, 1997; Reid & Eddy, 1997). Reinforcing the point that knowledge of developmental pathways toward violence is essential for programme development, Reid and Eddy state: "developmental life span targeting is a critical ingredient to effective prevention trials" (1997, p. 348).

IMPLICATIONS FOR VIOLENCE PREVENTION IN THE YOUNG

Public health oriented interventions are a common approach. Typically they have 3 levels of prevention based on the problem and the target group of interest (Flannery & Williams, 1999).

Primary prevention is universal and population-based. Here one would wish to target large groups of children, for example, to teach alternatives to violence when they enter a conflict situation. A number of programmes in South Africa and elsewhere use this sort of approach. Unfortunately, few if any have employed the rigorous evaluation designs that permit us to say that the programme has definitely made a difference. Evaluation is a difficult game, but good evaluations are essential to the effective use of resources in the violence prevention arena (Samples & Aber, 1998).

Primary initiatives are essential because children who are diagnosed with conduct disorder or anti-social behaviour represent only a small part of the general population within which a generalised acceptance of aggressive modes of problem solving may be apparent.

The high prevalence of conduct disorder and aggressive behaviour together with the difficulty and expense of treating established cases make the search for effective primary and secondary prevention programs of central concern to workers in the field (Offord, Boyle, & Rancine, 1991 in Pepler & Rubin, 1991).

Secondary prevention programmes target selected groups at high-risk for violent conduct due to the nature of their proximal extra-familial social contexts or to close interpersonal factors (e.g. boys in dysfunctional families in high crime neighbourhoods). Normally they have not sought help but have been identified by screening or other methods. Particularly during early and middle childhood, growing up in dysfunctional families predicts later delinquency (Eron, 1997; Loeber et al., 1993). A South African example of a small-scale evaluated early preventive intervention is Peterson and Corolissen's (2000) preschool-based child and parent intervention programme for aggressive children.

Tertiary prevention is normally high cost and treatment-based, targeting clinical populations who have already sought help and who have already been diagnosed with conduct or other antisocial disorders. The problem is commonly understood to have a primarily individual level source and solution.

While prevention initiatives may focus on one source of the problem (the child or the family or the school) it is clear that given the complexity of causal factors and pathways, multi-site multi-focus programmes are likely to have the best and most sustained outcomes – particularly in the case of primary and secondary level interventions for children living in high violence disadvantaged communities (Bierman, Greenberg, & CPPRG, 1996; Offord, 1997; Thornton, Craft, Dahlberg, Lynch, & Bauer, 2000). Such programmes are very expensive to mount (Bierman, personal communication, 2001).

However, in terms of cost effectiveness it may well be better to spend more money and time on a complex multi-site programme that has good outcomes, than to devote fewer resources to a programme that has little to show for the effort.

As with any other intervention, violence prevention programme designs require a theoretically sophisticated evidence-based understanding of the several sources and developmental pathways that may lead to violent conduct in children and youth. Without such an understanding, money may be wasted on well-intentioned initiatives that do not take sufficient account of the developmental level of the target population and the complex range of influences to which they are subject.

Regardless of their type, prevention programmes require several basic ingredients. Thornton et al. (2000) have provided the following checklist. If their outcomes are to be adequately assessed and if they are to have a basis for success, violence prevention programmes require:

- Clear goals and objectives.

- Clear target populations and a good rationale for their selection for *this particular* intervention for the target group in question.
- Designs that are informed by theory, evidence and good practice models appropriate to the target population and problem.
- Carefully designed delivery systems that take account of potential threats to implementation and success at the intervention sites. Here one must note that programmes imported from elsewhere that were successful under different conditions may not transfer well.
- Well-trained delivery staff whose own programme delivery behaviour is monitored as part of the process evaluation.
- Appropriate and valid measures of key programme variables.
- Evaluation and monitoring systems built into the process from inception until termination – preferably carried out by programme outsiders.
- In the case of primary and secondary level interventions in particular, the support of the target community and key persons who can affect delivery, is essential.

Unfortunately, a recent study by the author and colleagues, has shown that rigorous design and evaluation is not a common feature of South African programmes. (Farr, Dawes & Parker, 2003).

The challenge facing those who wish to prevent violence in South African youth is considerable. It is very difficult to penetrate and change the violent conditions that may prevail in the home, and often schools worst affected by violence are likely to be in such a state of dysfunction, and the staff so traumatised by violence themselves, that sophisticated interventions simply won't get off first base. Perhaps the primary interventions in such cases are making the school safe from external and internal threats, coupled with a good dose of school development.

Psychosocial initiatives such as those mentioned here can only hope to have a very limited impact on the problem given the significant structural violence of the society. However, there are things that can make a difference, particularly in the child's community. I close with some pointers to intervention.

- Concentrate on primary prevention to reach a wide range of children.
- Start early in childhood, and reinforce the intervention at later points in development.
- Remember that the sources of influence change with age, and therefore the form of the interventions must change accordingly.
- Concentrate on those factors that constitute the most risk and which have the best chance of being changed.
- There is much to be done by focussing on the 'toxicity' of the local environment – engage local energy to make schools and neighbourhoods clean, safe and positive for the young.
- Find ways to engage communities to watch over and care for the young.
- Use the evidence. Do not just institute an intervention programme

of a particular kind because that is what you are good at or familiar with. It may be appropriate, and it may not. For example, teacher training might not be the answer. Firing the head teacher might.

- The keys to a good prevention programme are: a good diagnostic assessment of the situation, a sound knowledge of children's development, a sound knowledge of the evidence relating to what works and what does not, and finally, a good evaluation strategy.

A last word on the potential of schools: as family support systems are increasingly compromised by poverty and by the AIDS pandemic, schools have the potential to be places of refuge, support, and care. Positive school environments can do much to provide sound developmental settings for children who would otherwise have few resources on which to build their competences. Of course schools have to be functioning well for this to be the case. Many in South Africa are not, and in an unknown number, children are subjected sexual abuse and violence from teachers as well as fellow scholars. The need to address these and the many other problems that occur in our schools is essential.

Notwithstanding the need to address this problem, school safety and violence prevention programmes can serve the important function of creating an environment which is safe for children, while at the same time creating opportunities for them to learn alternatives to violence.

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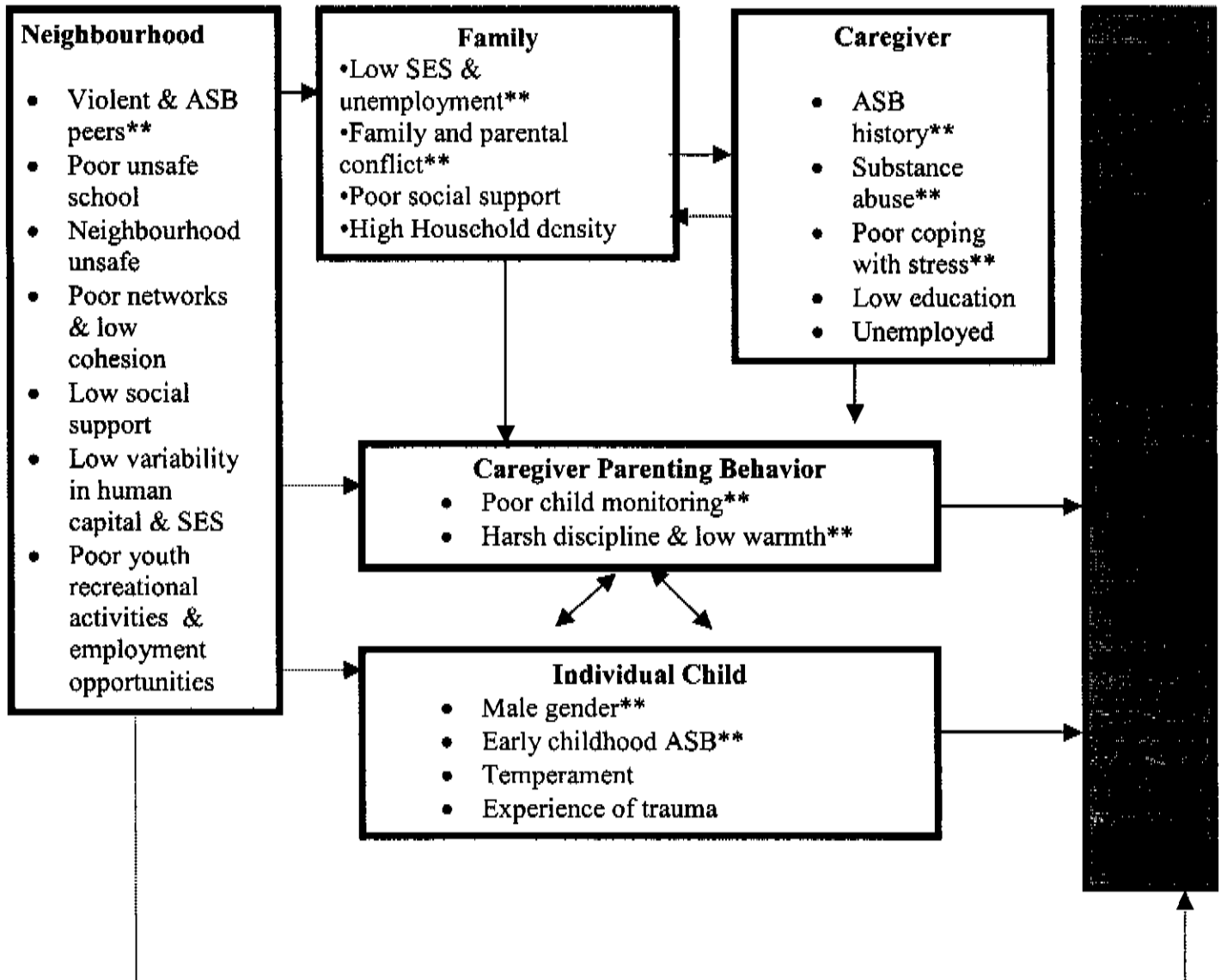
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**FIGURE 1: ANTI-SOCIAL BEHAVIOUR (ASB):
SOURCES OF INFLUENCE RISK FACTORS AND PATHWAYS**



Key:
****** Research evidence indicates that these factors, are the best predictors of violent conduct in later childhood and adolescence.

Arrows indicate the strength of influence between variables.
 —▶ solid arrows indicate strong influences
▶ dotted arrows indicate less strong influence
 Some influences are direct, others are indirect as indicated.

**FIGURE 2:
Main Risk Indicators for Aggressive and Antisocial Behaviour
(ASB) Across Development**

Period	Risk Factor
Prenatal	<ul style="list-style-type: none"> • Maternal under-nutrition and substance abuse (e.g. FAS)
Infancy	<ul style="list-style-type: none"> • Caregiver inconsistency and physical abuse • Difficult disruptive child temperament
Early childhood	<ul style="list-style-type: none"> • Coercive caregiver discipline • Regular exposure to violent conflict at home • Disruptive defiant child behaviour
Middle childhood	<ul style="list-style-type: none"> • Negative school experience • Aggressive and fights; minor crime, substance use. • Poor parental monitoring & involvement
Adolescence	<ul style="list-style-type: none"> • School failure and early drop out • Aggression, involved in crime, substance abuse • Poor parent-child relationship • Poor parental monitoring & involvement • Bonded with high risk peers

Table 1 Some Key Indicators of the Situation of South African Children	
Population	43.5 Million Child Proportion: 44%
Life expectancy at birth**	54.7 years (declining)
Gini Coefficient**	2001 = 0.635
Unemployment 2002^***	30%
Child population in poverty (below 40th percentile)**	60%
Children aged 10-16 out of school (estimate)**	At least 5%
<5 Mortality (/1000 LB)**	60
IMR (/ 1000 LB)**	44
Nutrition**	24% under 5s are stunted
Children living with Single mother**	42%
HIV prevalence***	Age 2-14: = 6% (all) Age 15-24: = 9% (all) Age 25-29: = 32% (Female) Age 25-29: = 22% (Male)
Orphan projections (Children < 15)#	2000: 600 000 2015: 3 Million
Child exposure to Sexual assault (1998 data++)	<ul style="list-style-type: none"> • 12-17 yrs: 472/100 000 • < 12 yrs 30/100 000
Leading cause of non-natural mortality among 15-19 yr olds+	Shootings and stabbings
Experience of interpersonal violence in Low Socio-economic status children aged 11 & 14 yrs**	<ul style="list-style-type: none"> • 90% have witnessed assault • 47% had been assaulted
Unicef Child Risk Measure (CRM)*	25

*The highest value of similar GNP countries. The CRM is a composite measure including: <5 MR; % children moderately or severely underweight; % primary school age children not in school; the risk of exposure to armed conflict; and the HIV/AIDS prevalence for 15- to 49-year-olds. (Unicef, 1999).

**UNDP (2000); Unicef (2001)

*** Human Sciences Research Council (2003).

#Dorrington, Bourne, Bradshaw, Laubscher and Timaeus, (2001).

Robinson & Biersteker (2000).

+ Medical Research Council, 2001

++ South African Police Services, 2001

+++Van der Merwe, 2001